Declass Review by NGA.

STAT

January 28, 1965

STAT Contract

Second Preliminary Technical Report

on

Item 2. Signal Strength of Broadcast Radiation of Closed-Circuit TV.

Item 2 Work Statement: Determine test facilities needed and rental cost and closed-circuit TV equipment needed and rental cost (if any) on loan arrangements. Determine what applicable data are available from manufacturers.

Contents

Submitted by:

STAT

STAT [redacted]

Second Preliminary Technical Report

1. Summary

The first Preliminary Technical Report, dated November 30, 1964, presented information on radio frequency noise tests conducted by manufacturers on their closed-circuit TV (CCTV) equipment. No tests had been conducted per Fed Std No. 222. Also presented was information on the availability and cost of test lab time and CCTV equipment for testing. Since available test data was meager, it was concluded in the report that a pilot test program would be needed to determine whether or not representative CCTV equipment conforms to the intent of Fed Std 222.

Accordingly, further information was obtained and is reported herein regarding preparation of a control and test plan for a Pilot Test and for conducting the test. It is recommended that a time-and-material contract be placed with STAT [redacted], for preparation of the plan and for conduction of the test. I estimate the not-to-exceed price STAT would be [redacted]

I strongly recommend urgent action on the proposed exploratory step. Factual data is lacking on the nature and magnitude of the problem and of course factual data is indispensable to wise decision making on future equipment.

2. Preparation of a Pilot Test Program

One of the commercial test labs in the area was selected for further discussion. [redacted] appeared STAT to be most knowledgeable concerning testing to Fed Std No. 222. Lou S referred me to [redacted] STAT STAT [redacted] who has security clearance. STAT [redacted] has secure labs for testing classified equipment. STAT [redacted] and I confined our discussion to the unclassified subject of the testing of CCTV equipment.

STAT [redacted] has in the past conducted tests on CCTV equipment to the various military radio frequency interSTAT ference specifications. [redacted] indicated it would be STAT fruitless to review that test data in an attempt to determine whether the equipment conformed to Fed Std No. 222. The sensitivity of the tests was an order of magnitude grosser than is required for Fed Std No. 222.

As the discussion progressed it became evident that preparation of a Pilot Test Program would require participation of a test lab engineer. In their terminology the Pilot Test Program is called a Control and Test Plan. Mr. STAT [redacted] estimated it would take approximately three-man days to prepare a Control and Test Plan. In addition to Test Lab participation it would be necessary to obtain information from the equipment manufacturer.

There are two approaches. One is to obtain the schematics and specifications of the CCTV equipment from the manufacturer and have the test lab people dig out the information as required during preparation of the test plan. For a pathfinding pilot test, however, I believe it would be wiser to have an engineer from the CCTV equipment manufacturer participate in preparation of the Control and Test STAT Plan. [redacted] was contacted, and they indicated that engineer's time would cost $100 per day, plus $15 per diem per day, plus transportation cost from San Diego.

I propose that the Control and Test Plan have a generalized format applicable to a wide range of CCTV equipment and that the specific equipment to be used in the pilot test be included throughout as a specific example. In this way, the Control and Test Plan can be used to obtain bids and procure testing of other CCTV equipment in the future.

3. Conducting the Pilot Test

STAT [redacted] is capable of conducting the test. They have an extensive complement of monitoring and recording equipment and screen rooms. They specialize in electrical interference testing and filter design and manufacture. Mr. STAT [redacted] stated that testing to Fed Std No. 222 required two complete sets of equipment and two test lab engineers. The two men must continuously cross check and balance their operation so it is slow going. He indicated the test would require five days test time. (For comparison, a similar test to a military radio noise specification would require only one or two days.) In addition, I recommend that two days of test engineer time and one day of equipment engineer time be allotted for preparation of the test report and revision of the Test and Control Plan to conform to actual test experience.

Since this will be a pilot test to determine whether or not a problem exists, no corrective action or design change will be undertaken or recommended. For this reason participation by the equipment manufacturer's engineer assumes

added importance. He will be able to indicate whether a specific non-conformance to Fed Std No. 222 is of major or minor consideration in relation to the equipment design.

4. Recommendations

I recommend you place a time-and-material contract with a not-to-exceed price with:

[redacted] STAT

for:

(a) Preparation of a Control and Test Plan.

(b) Conducting required tests.

(c) Preparation of Test Report and revision of Control and Test Plan as necessary.

The plan and the tests are to be for the purpose of determining whether the following equipment conforms to Fed Std No. 222:

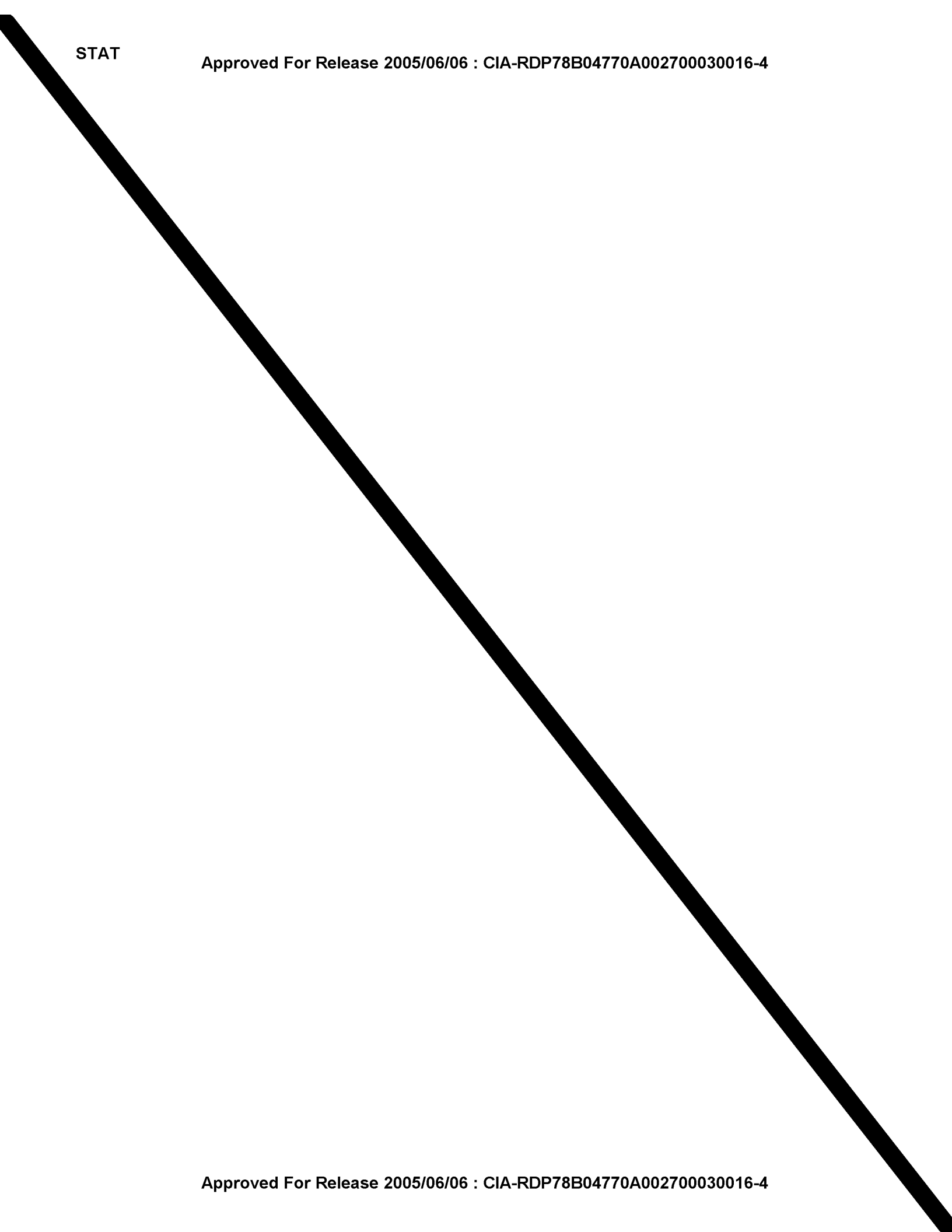
STAT One [redacted] 945 line High Resolution Closed-Circuit TV Camera Model 3004-011 with Type 8507 vidicon, or equal.

STAT One [redacted] High Resolution Camera Control Unit Model 3912-441 with 945 line sync, or equal.

STAT One [redacted] 17" High Resolution Monitor, cabinet mounted, Model HRM 17, or equal.

Interconnecting cables, 20 ft long, as required.

[redacted] STAT



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